A Scalable, Patient-Centered Approach for "Right-Sizing" Opioid Prescribing

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Regulatory Science Challenge

Over the last two decades, thousands of people have become addicted to prescription opioid analgesics and many have died. Research has shown that the risk for continued use of opioids may increase with the number of days a person uses prescription opioid pain medicines. Also, many patients store "left over" opioid analgesics at home, where the pills could be misused or abused by others, or involved in accidental poisonings. Prescribers need to balance treating a patient's pain while not prescribing more pills than will be needed. Guidelines on prescribing opioid pain medications are often general and do not take patient- or procedure- specific factors into consideration. Patient-reported data on the actual use of opioid pain medications after specific procedures are lacking.

Project Description

This project will collect data from patients undergoing elective orthopedic and neurosurgical procedures, as well as patients seen in the Emergency Department (ED) for acute pain. A text messaging app will be used to contact patients after their procedure or ED visit. Information on the number of doses of opioid pain medication used, the number of days of medication used, and how patients feel about their ability to treat their pain will be collected. By understanding how much medication most patients actually needed, a standard prescription for each procedure will be established. After the standard order is in place, a new set of patients will be contacted via text to ensure that the standard prescription is providing enough medicine to treat pain, but minimizing the number of pills remaining.

Project Goals

- Implement an automated post-encounter text messaging program to collect data on opioid analgesic consumption and ability to manage pain across orthopedic, neurosurgery, and emergency medicine.
- Leverage the behavioral economics of electronic medical record opioid analgesic prescribing software defaults for driving rapid changes in prescriber behavior.
- Implement and evaluate the effect of electronic medical record opioid analgesic prescribing defaults by orthopedic, neurosurgery, and emergency medicine on opioid analgesic prescribing and short-term outcomes.